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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,103	09/04/2001	Tsuguo Fukawa	21994/0028	1748

7590 08/02/2004  
Connolly Bove Lodge & Hutz LLP  
Suite 800  
1990 M Street, NW  
Washington, DC 20036-3425

EXAMINER
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CHEN, TIANJIE

ART UNIT	PAPER NUMBER
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2652

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DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/944,103

Applicant(s)

FUKAWA ET AL.

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## ***Final Rejection***

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katagiri et al (US 4,862,305) in view of Komiyama (US 5,121,275).

With regard to claim 11, Katagiri et al shows a tape cassette including: upper half 20a and lower half 20b (Figs. 2 and 4; column 3, lines 60-63) tape cassette components connected each other, a light emitting section 8 for detecting a tape end of a magnetic tape, and a light receiving section 9 for detecting the tape end of the magnetic tape by receiving a detection light beam irradiated by the light emitting section wherein the detection light beam irradiated by the light emitting section reaches the light receiving section in a level of luminous energy exceeding a predetermined luminous energy level, and wherein a hole 31 (Fig. 4) for a light path is formed on the tape cassette composed of the upper and lower halves so as to pass the detection light beam irradiated by the light emitting section to the light receiving section, and further wherein a protrusion 27 is formed on outer side of the upper half above the hole 31 for a light path so as to prevent undesired light other than the

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detection light beam in the predetermined luminous energy level from reaching the light receiving section (Column 4, lines 60-66).

Katagiri et al only show the left half of the cassette and does not show the right half of the cassette; and does not show at least the upper half is made of a material having optical transparency.

Komiyama et al shows a cassette wherein the whole cassette is shown; wherein a hole for the light path is formed on both sides; and at least the upper half is made of a material having optical transparency (Column 4, lines 44-45).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to set the hole on both sides and make the upper half with a material having optical transparency. The rationale is as follows: Katagiri et al does not show the right half, Komiyama shows the left and right portions of the cassette and set the holes on both sides. It is also a common practice in the art that set the hole on both sides. Komiyama also teaches that by using transparent material the amount of remaining magnetic tape within the cassette can be visually observed (Column 4, lines 44-48). One of ordinary skill in the art would have been motivated to set the hole on both sides and using transparent material to be able to visually observe the amount of the remaining tape.

With regard to claim 12, Katagiri et al does not disclose the roughness of the surface of protrusion 27.

Komiyama further shows that one surface of the prism 117, which faces toward the lower half and is perpendicular to the side of the upper half, is roughened for shielding extraneously incident light (Column 4, lines 60-66).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to roughen the surfaces of protrusion 27 as taught by Komiyama to further shielding extraneously incident light. It would include the surface, which faces toward the lower half and is perpendicular to the side of the upper half, out of a plurality of surfaces constituting the protrusion.

### ***Response to Arguments***

3. Applicant's arguments with respect to claim 11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is (703) 305-7499. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**TIANJIE CHEN**  
**PRIMARY EXAMINER**